Before the Federal Communications Commission Washington, D.C. 20554

In the Matter of)
Unlicensed Operation in the Band 3650 – 3700 MHz) ET Docket No. 04-151
Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band) ET Docket No. 02-380
Amendment of the Commission's Rules With Regard to the 3650-3700 MHz Government Transfer Band) ET Docket No. 98-237

COMMENTS OF INTEL CORPORATION

Intel commends the FCC for initiating this proceeding considering how to maximize the efficient use of the 3650-3700 MHz band ("3650 MHz band") and foster the introduction of new and advanced services. Intel is the world's largest semiconductor manufacturer and a leader in technical innovation. Intel is also a leading manufacturer of communications and networking chips and equipment. Intel has substantial research programs in areas such as cognitive radio technologies, smart antennas and ultra wideband.

Intel believes that the 3650 MHz band has the potential to foster the introduction of advanced wireless services to the American public and will result in a more efficient use of spectrum. In much of the rest of the world this spectrum has been allocated to provide licensed wireless broadband services. Commission rules should preserve the possibility of global harmonization of these frequencies. In that way, entrepreneurial wireless internet service providers (WISPs) who are today bringing broadband services to consumers in rural areas of the United States would benefit from the economies of global harmonization. More fundamentally, for long range services where contention among service providers is likely, Intel believes that exclusive licensing can better promote quality of service and business certainty. To foster ease of entry, the Commission should employ combinatorial auctions and permit spectrum leasing.

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Geographic Area Licensing

The Commission seeks comment on the proper geographical size of licenses and on a range of issues concerning possible competitive bidding procedures. Intel believes that the Commission should license this spectrum for relatively small geographic areas, such as Basic Trading Areas ("BTAs") or Metropolitan Statistical Areas ("MSAs"), but allow for aggregation of licenses through a combinatorial auction. This approach would minimize the entry costs for small and entrepreneurial WISPs but not preclude the possibility of a nationwide carrier.

Block Size

Larger bandwidth licenses will be optimal for some applications, *e.g.*, wireless broadband services. Therefore, Intel believes two blocks of 20MHz & 30MHz per area would give licensees flexibility to maximize the use of this spectrum. Aggregation should be permitted in the combinatorial auction subject to antitrust considerations.

Spectrum Leasing

Intel believes that to facilitate third party access licensees in the 3650 MHz band should be able to lease their spectrum through the policies established in the *Secondary Markets Report and Order and Further Notice of Proposed Rulemaking (Secondary Markets Report and Order and Secondary Markets Further Notice*, respectively).¹

Protection of FSS Operations, Power Limits

Intel agrees that it is appropriate to require licensed devices employ the same measures to protect FSS operations, and employ the same power limits, as the item proposes for unlicensed devices.

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¹ Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, *Report and Order and Further Notice of Proposed Rulemaking*, WT Docket No. 00-230, FCC 03-113 (rel. Oct. 6, 2003) (*Secondary Markets Report and Order* and *Secondary Markets Further Notice*, respectively).

Respectfully submitted,

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